

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/114061 A2

(51) International Patent Classification⁷: G06F
(21) International Application Number: PCT/US2004/018435
(22) International Filing Date: 10 June 2004 (10.06.2004)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data: 60/477,757 12 June 2003 (12.06.2003) US
(71) Applicant (for all designated States except US): REUTERS AMERICA [US/US]; 3 Times Square, 20th Floor, New York, NY 10036 (US).
(72) Inventors; and
(75) Inventors/Applicants (for US only): BOSE, Subhra [US/US]; Mohegan Lake, NY (US). SCIMONE, Steve [US/US]; Massapequa, NY (US). SRIRAMAN, Nallan [US/US]; Nesconset, NY (US). DUAN, Ziyang [US/US]; Stony Brook, NY (US). BERNSTEIN, Arthur [US/US]; Setauket, NY (US). LEWIS, Philip [US/US]; Stony Brook, NY (US). GROSU, Radu [US/US]; Rocky Point, NY (US).
(74) Agent: GLEMBOCKI, Christopher, R.; Banner & Witcoff, Ltd., 1001 G. Street, N.W., 11th Floor, Washington, D.C 2001-4597 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/114061 A2

(54) Title: BUSINESS PROCESS AUTOMATION

(57) Abstract: A system and method by which business processes within and between organizations and/or individuals may be automated using standards-based, service-oriented business process automation architectures based on XML and Web Services Standards is described. An execution framework for the business processes is also described. Further aspects include a decomposition methodology for deconstructing business process specifications into business flows, business rules and business states. The business flows, rules and states may be defined in declarative languages and include the interaction, cooperation and coordination between the flow, rules and state engines, and the execution model for business processes within the framework.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/114061 A3

(51) International Patent Classification⁷: G06F 9/44 (74) Agent: GLEMBOCKI, Christopher, R.; Banner & Witcoff, Ltd., 1001 G. Street, N.W., 11th Floor, Washington, D.C 2001-4597 (US).

(21) International Application Number: PCT/US2004/018435 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 10 June 2004 (10.06.2004) (71) Applicant (for all designated States except US): REUTERS AMERICA [US/US]; 3 Times Square, 20th Floor, New York, NY 10036 (US).

(25) Filing Language: English (26) Publication Language: English (30) Priority Data: 60/477,757 12 June 2003 (12.06.2003) US (72) Inventors; and (75) Inventors/Applicants (for US only): BOSE, Subhra [US/US]; Mohegan Lake, NY (US). SCIMONE, Steve [US/US]; Massapequa, NY (US). SRIRAMAN, Nallan [US/US]; Nesconset, NY (US). DUAN, Ziyang [US/US]; Stony Brook, NY (US). BERNSTEIN, Arthur [US/US]; Setauket, NY (US). LEWIS, Philip [US/US]; Stony Brook, NY (US). GROSU, Radu [US/US]; Rocky Point, NY (US).

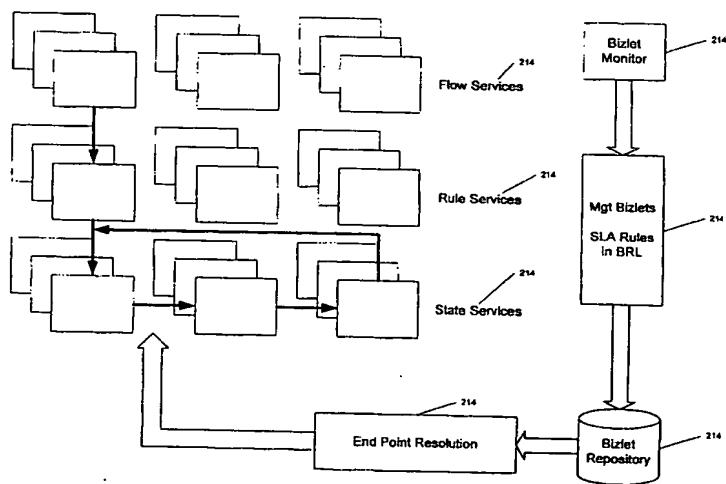
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: BUSINESS PROCESS AUTOMATION THROUGH THE USE OF WORKFLOW



(57) Abstract: A system for business processes within and between organizations and/or individuals may be automated using standards-based, service-oriented business process automation architectures based on XML and Web Services Standards is described. An execution framework for the business processes is also described. Further aspects include a decomposition methodology for deconstructing business process specifications into business flows, business rules and business states. The business flows (Fig 9, #214), rules (Fig 9, #214) and states (Fig 9, #214) may be defined in declarative languages and include the interaction, cooperation and coordination between the flow, rules and state engines, and the execution model for business processes within the framework.

WO 2004/114061 A3



- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

15 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.